IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

Please replace the third paragraph on page 4, commencing on line 8, with the following amended paragraph:

Space or path diversity is obtained by providing multiple signal paths through simultaneous links from a mobile user through two or more cell-sites. Furthermore, path diversity may be obtained by exploiting the multipath environment through spread spectrum processing by allowing a signal arriving with different propagation delays to be received and processed separately. Examples of path diversity are illustrated in U.S. Patent No. 5,101,501, entitled "METHOD AND SYSTEM FOR PROVIDING SOFT HANDOFF IN COMMUNICATIONS IN A CDMA CELLULAR TELEPHONE SYSTEM", and U.S. Patent No. 5,109,390, entitled "DIVERSITY RECEIVER IN A CDMA CELLULAR TELEPHONE SYSTEM", both assigned to the assignee of the present invention.

Please replace the last paragraph on page 15, commencing on line 34, with the following amended paragraph:

In the preferred embodiment, the Walsh function size n, is set equal to sixty-four (n = 64) for the cell-to-mobile link. Therefore each of up to sixty-four different signals to be transmitted are assigned a unique orthogonal sequence. The forward error correction (FEC) encoded symbol stream for each voice conversation is multiplied by its assigned Walsh sequence. The Walsh coded/FEC encoded symbol stream for each voice channel is then multiplied by the outer PN coded waveform. The[[.]] resultant spread symbol streams are then added together to form a composite waveform.

Please replace the third paragraph on page 19, commencing on line 29, with the following amended paragraph:

Searcher receiver 34 is used [[to]] at the cell-site to scan the time domain about the received signal to ensure that the associated digital data receiver 36, and data receiver 38 if used, are tracking and processing the strongest available time domain signal. Searcher receiver 64 provides a signal to cell-site control processor 48 which

provides control signals to digital data receivers 36 and 38 for selecting the appropriate received signal for processing.

Please replace the fourth paragraph on page 20, commencing on line 23, with the following amended paragraph:

The two PN sequences, PN_I and PN_Q, are generated by different polynomials of degree 15, augmented to produce sequences of length 32768 rather than 32767 which would normally be produced. For example, the augmentation may appear in the form of the addition of a single zero to the run of fourteen 0's in a row which appears one time in every maximal-length linear sequence of degree 15. In other words, one state of the PN generator would be repeated in the generation of the sequence. Thus the modified sequence contains one run of fifteen 1's and one run of fifteen 0's. Such a PN generator circuit is disclosed in U.S. Patent No. 5,228,054, entitled "~~POWER OF TWO~~ POWER-OF-TWO LENGTH PSEUDO-NOISE SEQUENCE GENERATOR WITH FAST OFFSET ADJUSTMENTS", and assigned to the assignee of the present invention.

Please replace the second paragraph on page 23, commencing on line 12, with the following amended paragraph:

In Figures 4a-4c, the transmitter circuitry of Figure 2 is illustrated in further detail with the pilot, sync, paging and voice channel signals. The transmitter circuitry includes two PN generators, PN generators 196 and 198, which generate the PN_I and PN_Q sequences. PN generators 196 and 198 are responsive to an input signal corresponding to a sector or cell address signal from the control processor so as to provide a predetermined time delay to the PN sequences. These time delayed PN_I and PN_Q sequences again relate respectively to the In-Phase (I) and Quadrature (Q) channels. Although only two PN generators are illustrated for respectively generating the PN_I and PN_Q sequences for the corresponding channels of the cell-site or sector, it should be understood that many other PN generator schemes may be implemented. For example, in [[a]] an unsectorized cell, a pair of PN generators may be provided for each of the pilot, sync, paging and voice channels to produce, in synchronization, the PN_I and PN_Q sequences used in the outer code. Such a case may be advantageous to avoid distributing the PN_I and PN_Q sequences throughout a large number of circuits.

Please replace the last paragraph on page 26, commencing on line 33, with the following amended paragraph:

In all cases in which a shifted pilot is used, a PN phase offset corresponding to the pilot shift is introduced. In other words, pilot sync (initial state) and sync channel messages are skewed with respect to the 1 pps signals. The sync messages ~~carries~~ <u>carry</u> this phase offset information so that the mobile unit can ~~adjusts~~ <u>adjust</u> its timing accordingly.

Please replace the third paragraph on page 32, commencing on line 22, with the following amended paragraph:

Referring again to Figures 4a-4c, circuitry 58 includes series of digital to analog (D/A) converters for converting the digital information from the PN_I and PN_Q spread data for the pilot, sync, paging and voice channels to analog form. In particular the pilot channel PN_I spread data is output from gain control element 210 to D/A converter 268. The digitized data is output from D/A converter 268 to an summer 284. Similarly, the output of the corresponding gain control elements for the sync, paging and voice channels PN_I spread data, i.e. gain control elements 228, 246, and 264_i - 264j, are respectively provided to D/A converters 272, 276 and 280i - 280j where the signals are digitized and provided to summer 284. The PN_Q spread data for the pilot, sync, paging and voice channels are output from gain control elements [[221]] <u>212</u>, 230, 248, and 266_i - 266j, are respectively provided to D/A converters 270, 274, 278 and 282_i - 282j where the signals are digitized and provided to summer 286.

Please replace the last paragraph on page 32, commencing on line 36, with the following amended paragraph:

Summer 284 sums the PN_I spread data for the pilot, sync, paging and voice channels and while summer 286 sums the [[and]] PN_Q spread data for the same channels. The summed I and Q channel data is respectively input along with local oscillator (LO) frequency signals Sin(2πft) and Cos(2πft) to mixers 288 and 290 where they are mixed and provided to summer 292. The LO frequency signals Sin(2πft) and Cos(2πft) are provided from suitable frequency sources (not shown). These mixed IF signals are summed in summer 292 and provided to mixer 294.

Please replace the third paragraph on page 34, commencing on line 13, with the following amended paragraph:

Voice signals coming from the PSTN intended for the mobile units, are provided to digital switch 308 for coupling to an appropriate digital vocoder such as vocoder 306 under control of system control processor 300. Vocoder 306 encodes the input digitized voice signals and provides the resulting information bit stream directly to digital switch 302. Digital switch 302 under system control processor 300 ~~control direct~~ directs the encoded data to the cell-site or cell-sites to which the mobile unit is communicating. Although discussed previously that information transmitted to the MTSO analog voice, it is further envisioned that digital information may also be communicated in the system. To ensure compatibility with the system, care must be taken in proper framing of the data.

Please replace the first paragraph on page 39, commencing on line 1, with the following amended paragraph:

Figure 9 illustrates in block diagram form an exemplary mobile unit CDMA telephone set. The mobile unit CDMA telephone set includes an antenna 430 which is coupled through diplexer 432 to analog receiver [[344]] 434 and transmit power amplifier 436. Antenna 430 and diplexer 432 are of standard design and permit simultaneous transmission and reception through a single antenna. Antenna 430 collects transmitted signals and provides them through diplexer 432 to analog receiver 434. Receiver 434 receives the RF frequency signals from diplexer 432 which are typically in the 850 MHz frequency band for amplification and frequency downconversion to an IF frequency. This translation process is accomplished using a frequency synthesizer of standard design which permits the receiver to be tuned to any of the frequencies within the receive frequency band of the overall cellular telephone frequency band. The signals are also filtered and digitized for providing to digital data receivers ~~540 and 542~~ 440 and 442 along with searcher receiver [[544]] 444.

Please replace the last paragraph on page 39, commencing on line 32, with the following amended paragraph:

The filtered signals are output from BPF 508 as an input to a variable gain IF amplifier 510 where the signals are again amplified. The amplified IF signals are output from IF amplifier 510 to analog to digital (A/D) converter 512 where the signals are digitized. The conversion of the IF signal to a digital signal occurs at a 9.8304 MHz clock rate in the exemplary embodiment which is exactly eight times the PN chip rate. Although A/D converter 512 is illustrated as part of receiver [[534]] 434, it could instead be a part of the data and searcher receivers. The

digitized IF signals are output from A/D converter 512 to data receivers 440 and 442, and searcher receiver 444.